

Office of Electricity Delivery and Energy Reliability

Infrastructure Security and Energy Restoration

ENERGY ASSURANCE DAILY

Friday Evening, September 05, 2008

Major Developments

Update: 662,602 Customers Remain Without Power after Gustav September 5

According to the latest utility reports as of 5:00 PM EDT, September 5, approximately 662,602 customers remain without power in Louisiana, Mississippi and Arkansas, down from approximately 950,000 at around the same time September 4. A non-coincidental peak of 1.8 million customers without power was reported earlier this week when Hurricane Gustav heavily damaged electric infrastructure in the region. Entergy, the hardest hit Gulf utility, said on September 3 that it had reestablished some connection between the main power grid and what had been an isolated "island" between Baton Rogue and New Orleans. The reconnections, which will be bolstered over the next few days, will enable Entergy to gradually reconnect blocks of customers. The company expects to continue to restore power to a significant number of customers in Louisiana over the next week. In hard hit areas where damage is severe and access may be restricted, restoration will continue through the month of September. Restoration to New Orleans is expected by Monday, September 8, while the East Baton Rogue area, where damage has been severe, is not expected to be fully restored until September 24. The U.S. Federal Energy Regulatory Commission on September 5 said it granted Entergy emergency waivers from agency rules governing transactions between affiliated companies to allow the utility to recover from severe storm damage. The following table lists peak and most recent outage figures, based on multiple reports. For more detailed information, visit the OE's most recent situation report at: http://www.oe.netl.doe.gov/named event.aspx?ID=18

U.S. Gulf Coast Power Outages					
September 1-5, 2008					
Electric Utility	State	Peak	Latest Reported		
Entergy	AR	90,616	19,500		
First Electric Cooperative	AR	18,000	25		
Entergy	LA	787,180	466,999		
Cleco Power	LA	246,092	68,928		
SLEMCO	LA	85,258	9,901		
Beauregard Electric	LA	38,000	400		
Lafayette Utilities System	LA	28,000	0		
DEMCO	LA	94,000	61,456		
SLECA	LA	20,402	18,000		
AEP-SWEPCO	LA/AR	12,000	0		
Entergy	MS	62,820	1,393		
Electric Power Associations	MS	300,000	16,000		
Mississippi Power	MS	22,000	0		
TOTAL*		1,804,368	662,602		

^{*}Total outages only represent electric utilities listed in this table.

Sources:

http://www.cleco.com/site.php

http://www.slemco.com/emergency-Gustav.html

http://www.lus.org/site.php?pageID=108&newsID=526

http://www.entergy.com/

http://www.swepco.com/news/outages/

http://demco.maps.sienatech.com/

http://www.firstelectric.coop/files/pdfs/news_release/fecc_outage_release_9508_4_pm.pdf

 $\frac{\text{http://www.clarionledger.com/apps/pbcs.dll/article?AID=/20080905/NEWS0110/809050362/1001/news}{\text{http://www.platts.com/Electric%20Power/News/8008207.xml?p=Electric%20Power/News&sub=Electric%20Power/News&sub=Electric%20Power/News&sub=Electric%20Power/News&sub=Electric%20Power/News&sub=Electric%20Power/News&sub=Electric%20Power/News&sub=Electric%20Power/News&sub=Electric%20Power/News.reuters.com/article/rbssIndustryMaterialsUtilitiesNews/idUSN0330056320080904?pageNumber=1&virtualBrandChannel=0$

http://www.businessweek.com/ap/financialnews/D93092700.htm

Update: Six Gulf Coast Refineries Remain Offline after Gustav September 5

Entergy Corp said September 4 that it expected to restore service to 11 of 12 refineries that lost power due to Hurricane Gustav by September 5. Flooding at a substation will prohibit restoration to one refinery, which Entergy declined to identify. As of OE's 3PM Situation report:

- Six refineries are still shut down in the Gulf Coast: ConocoPhillips Bell Chasse, Motiva Convent, Murphy
 Oil Meraux, Shell St. Rose, Alon Krotz Springs, and Valero Norco. Press reports unconfirmed by the DOE
 indicate that Murphy Oil's Meraux refinery has begun to restart. Valero's CEO said it does not expect to
 begin processing crude at its Norco refinery before September 7 due to issues with supply of power and
 natural gas.
- Seven Gulf Coast refineries were in the process of restarting: Chalmette, ConocoPhillips Westlake, ExxonMobil Baton Rouge, Marathon Garyville, Motiva Norco, Placid Refining Port Allen, and Total Port Arthur. Press reports say Motiva's Norco refinery has power and should begin producing gasoline as early as September 7.
- Six refineries were running at reduced rates: Citgo Lake Charles, Chevron Pascagoula, BP Texas City, Motiva Port Arthur, Pasadena Refining Pasadena, and Valero Port Arthur. In a press release Chevron said that the refinery began returning to planned production rates on September 4 when the U.S. Coast Guard reopened the ship channel leading to the refinery. Louisiana state regulators said that Citgo's Lake Charles refinery had sustained no damage from Hurricane Gustav.
- Six Gulf Coast refineries have already returned to normal operations.

For more detailed information, visit the OE's most recent situation report at:

http://www.oe.netl.doe.gov/named_event.aspx?ID=18

http://www.shell.us/home/content/usa/aboutshell/media_center/hurricane_center/storm_updates/2008/gustav/gustav_37 090508.html

http://www.platts.com/Natural%20Gas/News/8007763.xml?p=Natural%20Gas/News&sub=Natural%20Gas

http://www.forbes.com/afxnewslimited/feeds/afx/2008/09/04/afx5389379.html

http://www.reuters.com/article/marketsNews/idUSN0537092020080905

Reuters, 16:28 September 4, 2008 Reuters, 11:19 September 5, 2008 Reuters, 12:20 September 5, 2008

Reuters, 13:57 September 5, 2008

Update: 10 Natural Gas Plants Remain Shut Down in Gulf Coast September 5

As of 2:00 PM EDT, September 5, there are 10 confirmed natural gas processing plants that remain shut down, but are ready to operate once power is restored and/or gas flow from upstream commences service. In addition, there are 14 plants that have resumed operations either at reduced or normal levels. Four plants that are shut down have reported that clean up and restoration efforts are underway. Currently, there is no timeline of when these facilities will return to service.

http://www.oe.netl.doe.gov/named_event.aspx?ID=18

Update: LOOP Resumes Offloading Tankers September 5

1.2 Million b/d Terminal Will Operate at Reduced Capacity Until Power Problems Fixed

The Louisiana Offshore Oil Port (LOOP) resumed offloading of oil tankers this morning at 3:18 AM EDT and resumed deliveries from its crude oil storage facilities shortly before 10:00 AM EDT this morning. LOOP is the only port in the nation that receives supertankers with crude oil cargoes. Pipelines connect LOOP to over 50 percent of the nation's refining capacity. In anticipation of Hurricane Gustav, LOOP suspended its offloading operations in the Gulf of Mexico on August 31 and evacuated workers from its offshore platform. The LOOP infrastructure was not damaged by Hurricane Gustav which passed directly over the LOOP platform. Due to continuing outages in the commercial power grid, LOOP will temporarily operate with emergency power. Until full power is restored, LOOP will operate at reduced capacity. With full power, LOOP offloads an average of 1.2 million barrels of crude oil per day.

http://www.loopllc.com/f1.cfm?n=1

Update: Offshore Oil & Gas Producers Continue to Restore Output in U.S. Gulf 91 Percent of Oil, 80 Percent of Gas Remain Offline September 5

As of 12:30 PM EDT, September 5, the Minerals Management Service (MMS) reports 1,176,738 b/d of offshore Gulf crude production remains shut-in, equivalent to 90.5 percent of the Gulf's crude production. MMS reports 5,907 MMcf/d of the Gulf's natural gas production remains shut-in, equivalent to 79.8 percent of the Gulf production. At 12:30 EDT on September 4, MMS reported 95.2% of oil production and 87.5% of gas production offline. In a separate statement released late September 4, Shell said that there was no significant damage to any of its facilities in the Gulf but reported "light to moderate damage" to topsides grating, tubing and control cables at Mars, West Delta 143 and Cognac. Shell reported that repair plans are underway but production start up at these locations would not commence before next week. Due to downstream pipeline and processing infrastructure damage, restart and production ramp up procedures will commence at most other Shell locations late this weekend. Shell's Fairway Field restarted September 4.

http://www.mms.gov/ooc/press/2008/press0905.htm

http://www.shell.us/home/content/usa/aboutshell/media_center/hurricane_center/storm_updates/2008/gustav/gustav 36 090408.html

Update: EPA Issues Emergency Fuel Waivers for Alabama, Georgia, and North Carolina September 5 – Louisiana Waiver Extended, Texas Waiver Remains in Effect

The Environmental Protection Agency (EPA), working with the Department of Energy, issued a multi-state emergency fuel waiver late afternoon September 5 due to the consequences of Hurricane Gustav and the pending shortages and damage expected from Tropical Storm Hanna. EPA moved to waive the 7.8 psi Reid Vapor Pressure (RVP) maximum and ethanol additive federal requirement for gasoline in the states of Alabama, Georgia, Louisiana and North Carolina through September 15. On August 29, EPA waived the 7.8 psi RVP requirement for the state of Louisiana. This waiver, originally set to expire on September 8, was extended yesterday through September 15. The justification for the EPA waiver is that shutdowns of several Gulf area petroleum refiners and widespread power outages in Louisiana caused the curtailment in production and delivery of low volatility gasoline. On August 31, EPA waived the requirement for reformulated gasoline in the state of Texas through September 8. Multi-state Waiver: http://www.epa.gov/compliance/resources/policies/civil/caa/mobile/multistatefuelwaiver090508.pdf

Louisiana Waiver: http://www.epa.gov/compliance/resources/policies/civil/caa/mobile/louisiana-

gustavfuelwaiver082908.pdf
Texas Waiver: http://www.epa.gov/compliance/resources/policies/civil/caa/mobile/gustav-texas- fuelwaiver083108.pdf

Louisiana's Port Fourchan May be Impassable for One Week

According to a Bloomberg interview with Ted Falgout, director Port Fourchon in Louisiana, the port may not receive utility power for four to six weeks and the port's channel may not be passable for a week due to blockage from several four- to six-ton stones from the port's east jetty and sediment from Hurricane Gustav. Bloomberg News, 21:20 September 5, 2008

Louisiana Posts Webpage Identifying Gas Stations with Power and Fuel

http://emergency.louisiana.gov/Releases/GasStations.html

Electricity

Progress Energy's 811 MW Brunswick Nuke Unit 2 in North Carolina Ramps Up to 70 Percent by September 5

The Nuclear Regulatory Commission reported that on the morning of September 4 the unit was operating at 20

Information derived from the NRC Power Reactor Status Reports:

http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2008/

Calpine's 135 MW Gilroy Gas-fired Unit in California Returns to Service by September 4

According to the California ISO, the unit experienced an unplanned outage on September 4. http://www.caiso.com/unitstatus/data/unitstatus200809041515.html

Duke's 336 MW Morro Bay Gas-fired Unit 4 in California Shut by September 4

According to the California ISO, the unit experienced an unplanned outage on September 4. http://www.caiso.com/unitstatus/data/unitstatus200809041515.html

AES's 496 MW Redondo Gas-fired Unit 8 in California Shut by September 4

According to the California ISO, the unit experienced an unplanned outage on September 4. http://www.caiso.com/unitstatus/data/unitstatus200809041515.html

City of Vernon's 134 MW Malburg Gas-fired Unit in California Shut by September 4

According to the California ISO, the unit experienced an unplanned outage on September 4. http://www.caiso.com/unitstatus/data/unitstatus200809041515.html

Petroleum

Pump Fire Shuts Heavy Oil Cracker at Valero's 142,000 b/d Corpus Christi, Texas Refinery

The company said on September 5 that a small pump fire shut a heavy oil cracker at the refinery. The unit is expected to be shut for 7 to 10 days of repairs. Gasoline production will be curtailed by 80,000 b/d and distillate production will be curtailed by 7,500 b/d. In a filing with Texas regulators, Valero reported unplanned maintenance at Complex 3 of the refinery.

http://www.reuters.com/article/rbssEnergyNews/idUSN0547992620080905

http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=113489

Motiva Cuts Rates at 290,000 b/d Port Arthur, Texas Refinery September 5

According to a filing with Texas regulators, the company reduced charge rates at the refinery after a unit upset caused by a water pump failure.

http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=113520

Update: Units in Restart at ConocoPhillips's 306,000 b/d Wood River, Illinois Refinery September 5

The company said September 5 that it was in the process of restarting impacted units at the refinery after a brief power outage September 3.

Reuters, 13:51 September 5, 2008

Update: FCCU Returns to Planned Rates at Valero's 135,000 b/d Wilmington, California Refinery September 5

The 54,000 b/d fluidic catalytic cracking unit (FCCU) was back at planned rates on September 5 after repairs to a pump. The unit was shut on September 2 and restarted on September 3. Reuters, 08:51 September 5, 2008

Update: Repairs Complete on FCCU Boiler at Valero's 210,000 b/d Delaware City, Delaware Refinery

A company spokesman said in an email September 5 that repairs on a CO boiler in the FCCU were complete. The repairs began in mid-August and the FCCU remained in operation during the repairs. Reuters, 08:51 September 5, 2008

Senate Panel Examines Crude Oil Transportation Constraints in North Dakota

Infrastructure constraints for the transportation of North Dakota crude oil were discussed at a field hearing of the U.S. Senate's Energy and Water Appropriations Committee in Bismarck, North Dakota on September 4. North Dakota wells are producing 166,000 b/d of crude oil while the state's current infrastructure of pipelines, railcars and trucks can only support about 189,000 b/d of production. Enbridge plans to expand its pipeline system to add 50,000 b/d of capacity.

http://www.downstreamtoday.com/News/ArticlePrint.aspx?aid=12629

Brazil May Have 30-70 Billion Barrels in Oil Fields Already Discovered Near Tupi

Brazil's Economic Affairs Secretary said that he thinks that oilfields already discovered by Petrobras and other companies near the Tupi field may hold 30 billion to 70 billion barrels of crude oil reserves. In November, Petrobras said the Tupi field my have as much as 8 billion barrels of recoverable reserves. http://www.bloomberg.com/apps/news?pid=20601086&sid=aubL2IKpr82Y&refer=news.

Natural Gas

Nothing to report.

Other News

Nothing to report.

Energy Prices

U.S. Oil and Gas Prices September 5, 2008					
	Today	Week Ago	Year Ago		
CRUDE OIL West Texas Intermediate U.S. \$/Barrel	106.18	115.55	75.64		
NATURAL GAS Henry Hub \$/Million Btu	7.24	8.36	5.80		

Source: Reuters

Energy Notes

California PUC Report Blames Improperly Maintained SDG&E and Cox Power Lines for October 2007 Wildfires

http://www.nytimes.com/2008/09/04/us/04fires.html? r=1&oref=slogin&ref=us&pagewanted=print

Helicopter Crashes on Takeoff at Offshore Oil Rig, Halts Operations at Rashid Oilfield in UAE

http://www.nytimes.com/aponline/world/AP-Dubai-Helicopter-

Crash.html?scp=3&sq=%2b%22Energy+Information+Administration%22&st=nyt

Trade Source Says Exports from Nigeria's Deepwater Agbami Oilfield are Expected to be Delayed

http://www.rigzone.com/news/article_pf.asp?a_id=66260

Kashagan Oilfield in Kazakhstan Might Start Commercial Production in 2014, A Year Later Than Intended

http://www.rigzone.com/news/article_pf.asp?a_id=66239

BP, Russian Shareholders Sign Deal to End TNK-BP Feud

http://www.platts.com/Oil/News/8005191.xml?p=Oil/News&sub=Oil

Links

This Week in Petroleum from the Energy Information Administration (EIA)

http://tonto.eia.doe.gov/oog/info/twip/twip.asp

Updated every Wednesday.

Weekly Petroleum Status Report from EIA

http://www.eia.doe.gov/oil_gas/petroleum/data_publications/weekly_petroleum_status_report/wpsr.html Updated after 10:30 AM & 1:00 PM EST every Wednesday.

Natural Gas Weekly Update from EIA

http://tonto.eia.doe.gov/oog/info/ngw/ngupdate.asp

Updated after 2:00 PM EST every Thursday.

ENERGY ASSURANCE DAILY

Energy Assurance Daily provides a summary of public information concerning current energy issues. Published Monday through Friday to inform stakeholders of developments affecting energy systems, flows, and markets, it provides highlights of energy issues rather than a comprehensive coverage. Energy Assurance Daily is updated online Monday through Friday after 5:00 p.m. EST. For more information, visit the Infrastructure Security and Energy Restoration (ISER) website at: http://www.oe.netl.doe.gov/ead.aspx

Please direct comments and questions to: ead@oe.netl.doe.gov